UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Site Big River Mine
ID # MOD 981126899
Break 10.1
Other 4-2-82
conf. per atty.

DATE APR 2 1982

SUBJECT Lead Mine Tailings Workshop

FROM Martha R Steincamp MRS
Attorney, CNSL-LEGL

TO Terry J Satterlee
Chief, CNSL-LEGL

Attached is Bill's memo on some of the substantive items discussed at the latest workshop

Bill is the attorney of record on matters involving the Lead Mine Tailings pile near Des Loge, Missouri, and as such has compiled an extensive amount of information on this pile As attorney of record, it was appropriate for him to attend this meeting and update his information on the current status of activities at this site

I would suggest we discuss our concerns about the December 14 memo from Karen Flourney to Robert Morby on the Covenant Not to Sue Apparently, the Corps will be making some pitch for superfund money which Morby should be made aware of I would certainly like to be made aware of their anticipated dealings with the state on this matter prior to action

cc David R Tripp, w/attachments

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SUPERFUND RECORDS

EPA Form 1320-6 (R 3 76)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE 3/30/82

SUBJECT Big River Lead Studies Workship II - Trip Report

FROM William H Ward 1/10
Attorney, CNSL-LEGL

TO Terry J Satterlee
Chief, CNSL-LEGL

The workshop was held at the University of Missouri at Rolla on March 25 1982 I have a copy of the program and a chronology of state and federal governmental involvement prepared by MDNR as background

St Joe Minerals has finished repairing the two big gullies from which the majority of the tailings were discharged in the 1977 washout Instead of filling the gullies with coarse tailings as originally required by the 'Covenant Not to Sue', the Covenant was amended, permitting them to build dams made of the coarse tailings across the mouths of the gaps As required by the Covenant, St Joe built berms around the perimeters of the gullies to keep rainfall on other parts of the pile from getting in the gullies

While this leaves the gullies essentially unfilled with tailings the state apparently believes the restoration is satisfactory John Carter from St Joe said however, that they 'want the landfill authority to put tires and any type of trash that will not cause problems into the gap I asked what types of trash 'might cause problems and he said domestic wastes causing leachate into the river It was not clear whether his concern was for the leachate only or for the lead which MDNR consultant John Novak's January 1980 report suggests the leachate can so completely mobilize

Bobby Wixson and Nord Gale, Rolla professors who consult for the industry, acknowledged that there really is lead in the edible tissue of Big River fish, but you would have to eat two or three pounds of it a day for a long time to show any clinical effects (It's note, however, that Dr Wixson had said at the December 1980 Lead Workshop that he had found lead in the membranes of gill, skin and scale, and in fish into the flesh, but not in edible tissue) Chris Schmidt of the Fish and Wildlife Service pointed out however that to be fair about the fruition we can't necessarily say that people have no other dietary or other source of lead in their blood (I earlier had asked his own Department's Tim Kelly [illegible] Donnell if he had been able to do the blood level tests of the fishermen in the Big River area that he talked about at the meeting last year and he said no)

EPA Form 1320 6 (R 3 76)

Chris Schmidt of the FWS Columbia National Fisheries Research Laboratory [illegible] or the studies he did for the Corps of Engineers on the significance of the tailings for the COE's proposed Piney Ford Reservoir in Ironton on the Big River. Schmidt said his findings in retrospect should have been obvious to him -- that the weathering of the tailings has substantially and significantly changed their chemical characteristics. Schmidt says the percentage of mineral-bound lead has decreased and the carbonate iron and magnesium bound lead forms are now the predominant ones. The e forms make the lead much more 'available' in the event of pH or redox changes. This has great importance for the proposed reservoir, where such conditions in the hypolimnion could cause the lead to go into solution (and dam normally discharge water taken from deep in the reservoir).

Mike Klosterman from the St. Louis District Corps of Engineers said that in light of the Schmidt findings they were recommending that the Piney Ford Reservoir plan be abandoned. They said, however, that they had developed a plan to contain the various tailings piles in the area, and would recommend to their Division office that it be implemented. The plan will cost $75 million -- $20 million to fix up 17 barite sites and $55 million for 8 lead sites including Desloge. Work would take about 5 years and result in containment of about 100% of the tailings during dry weather and 90% of the tailings during wet weather. Klosterman said it wasn't clear that so doing would permit them to build the reservoir later though.

While it's good that the Corps has found something benign to do, I'm not sure their plan has been completely thought out. Barring an geologic catclysm, the tailings aren't going to wash into the [illegible] from even the [illegible] in very quantities. A major problem however may be airborne fines which have especially large percentage of potentially "available" lead. Revegetation would help stop this problem (one color slide showed a red dust cloud over the river) but it's possible that decaying vegetation could create conditions which would dissolve the lead allowing it to leach to the river. Larry George of the Bureau of Mines was looking into that problem, but he told Karen Flournoy in January that he may run out of money before his study is done. (Larry was at the meeting but didn't make a presentation.)

The Corps' plan does not seem to address what looks to me like the most documented problem with the pile - the existence of a growing sanitary landfill in it. The leachate from the landfill if it is similar to the organic acid EDTA as assumed by John Novak will - as Novak's tests show - dissolve and mobilize virtually ALL the lead in the tailings. My notes show that the Missouri Department of Conservation's Dr. Whitley told me over lunch at the meeting last year that Novak thinks the landfill is '1000 times more dangerous than the tailings by themselves.' The landfill operators, said Whitley, plan to keep using the pile until there's no more room.'

Neither the pile nor the landfill has been listed as an uncontrolled site or Superfund site. I imagine that if the Corp goes after Superfund money to implement its plan a number of serious questions will be asked maybe by Congress, about the Covenant Not to Sue and LPA's decision not to list these sites (especially in view of the big deal we've made of Tar Creek)

I'm glad I'm an Indian